



NOTEBOOK NEWS

VODAFONE LAUNCHES PAY-AS-YOU-GO 3G FOR NOTEBOOKS

Vodafone has announced the release of the UK's first pre-pay 3G/GPRS data card, for connecting wirelessly to the internet from a notebook.

The CardBus adaptor works in the 65 per cent of the UK that has 3G coverage, and in 13 other countries with a 3G network. For £199 you get the card plus 10MB of free data traffic. Subsequent top-ups cost £3.07 per MB in the UK and £9.09 internationally. For more information, go to www.vodafone.co.uk.

NOTEBOOK POWER FOR HALF A DAY?

Fujitsu Siemens has added the Lifebook C1320 to its business line with the promise of 12 hours of battery life. Rather than having one super battery, the Lifebook comes with two batteries, one of which fills a spare drive bay. Both batteries are rated at just over six hours each.

The notebook will be available in 15" standard and 15.4" widescreen versions. With a 2.0GHz Pentium M 760 processor, 1GB of RAM and an 80GB hard disk, the C1320 should cost around £1,500. We aim to get one soon and test the battery life.

NOTEBOOKS GET BETTER AT GAMING

After the launch of Dell's XPS (*What's New, Shopper* August 2005), other manufacturers are starting to build notebook PCs with nVidia 6800Ultra chips. The mobile version of nVidia's high-end PC graphics card lets you play the latest games on your notebook. MV is the latest company to launch such a product and, like Dell's XPS, it's a desktop replacement and difficult to carry around.

Graphics are becoming more important in notebooks as sales continue to rise. We're starting to see lots of notebooks with MXM connectors, which will make it easier to upgrade graphics. Currently, MXM graphics adaptors are available only to notebook manufacturers, but we wouldn't be surprised if some resellers were to start selling them soon.



REVIEW NOTEBOOK PC

HI-GRADE Notino C7000s-2000

RATING ★★★★★

PRICE £1,174 inc VAT

SUPPLIER Hi-Grade 020 8532 6111

DETAILS www.higrade.com

Manufacturers of notebooks and graphics chipsets have recently agreed on the Mobile PCI Express Module (MXM) standard, which gives notebooks a common upgradable graphics interface. Hi-Grade's Notino C7000s is the second notebook we have seen with MXM upgradable graphics after Evesham's Voyager C520, which we reviewed in *What's New, Shopper* September 2005.

The C7000s incorporates a slim MXM I module containing the mid-range nVidia GeForce Go 6600 chipset. MXM is not really designed with user upgrades in mind, so accessing the card involves removing several screws, a heat sink and a fan.

The notebook is large but, at 2.9kg, is lighter than a desktop replacement. The base is slim, although the MXM module causes a bulge on the bottom. Three USB2.0 ports, FireWire, S-video and D-sub graphics outputs are all clustered at the rear. The internal DVD writer burns double-layer discs, but it's on the front of the chassis, so changing discs can be awkward while the notebook is on your lap. Battery life is mediocre at just over two hours.

The C7000s looks smart with its two-tone silver finish, but the plastic feels cheap and is very flexible, especially around the keyboard, which is comfortable to use despite its wobbly keys. The touch pad is accurate but its buttons are appalling



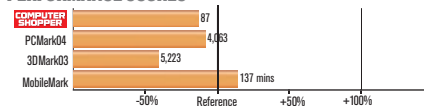
stiff. The C7000s has a 15" display with a high resolution of 1,400x1,050 pixels. The screen has impressive contrast and displays images superbly, due to its near-perfect distribution of colour and lack of any perceptible grain. Vertical viewing angles are very poor, though, as the picture fades quickly if the panel is in the wrong position. It comes with Windows XP Media Center Edition.

The C7000s performed well in our tests. A 2.0GHz Intel Pentium M processor and 512MB of RAM helped it to very strong scores in the *Shopper* benchmarks and PCMark04. Its 3D performance, while not as good as that of a dedicated gaming notebook, is impressive for one that costs less than £1,500, and you should be able to upgrade it later.

Hi-Grade's Notino C7000s is a powerful notebook with the advantage of upgradable graphics and a decent screen. Build quality is not the best, though, and unless you feel you will need a graphics upgrade in the future, Acer's Aspire 5014WLMi (see Hotlist on page 21) is just as powerful and £400 cheaper.

Chris Finnamore

PERFORMANCE SCORES



✓ Upgradable graphics; strong performance

✗ Expensive; mediocre build quality

SPECIFICATIONS 2.0GHz Intel Pentium M 760, 512MB RAM, 80GB hard disk, nVidia GeForce Go 6600 MXM 1 graphics module, DVD+/-RW DL, 15" 1,400x1,050 LCD, weighs 2.9kg. **Part code** C7000s-2000

HOTLIST NOTEBOOK PC

ACER Ferrari 4005 WLMi

RATING ★★★★★

PRICE £1,199 inc VAT

SUPPLIER www.acernotebooks.co.uk

DETAILS www.acer.co.uk

The latest notebook in Acer's Ferrari range has more tasteful styling than its previous gaudy efforts. What's more, it's a slim and well-built notebook with impressive 2D and 3D performance. It is crammed with features such as a double-layer DVD writer and built-in Bluetooth, and it has a huge, 100GB hard disk and a gigabyte of RAM.

The soft rubber keyboard surround makes typing very comfortable and the high-resolution screen has excellent contrast and colour saturation. The 4005 WLMi is also



good value, showing that Acer is not charging over the odds for the Ferrari branding, despite the carbon-fibre lid.

SPECIFICATIONS 2.0GHz AMD Turion 64 ML-37, 1GB RAM, 100GB hard disk, ATI Mobility Radeon X700 graphics, DVD+/-RW DL, 1,680x1,050 widescreen LCD, weighs 3.05kg. **Part code** LX.FR406.034



REVIEW NOTEBOOK PC

SAMSUNG
X20 730 XPP

RATING ★★★★★

PRICE £905 inc VAT

SUPPLIER www.laptopshop.co.ukDETAILS www.samsung.co.uk

Samsung's X20 is an unusual notebook. While not light enough to be considered an ultra-portable, it is extremely thin and much lighter than most portable PCs with 15" screens and full-size keyboards. It is a good choice for those who want a large screen and decent keyboard without having to compromise too much on portability.

Like most Samsung notebooks, the X20 looks great. Its footprint is about the same as that of most 15" notebooks, but when closed it is far thinner than many. Its metallic silver finish looks expensive, and the stiff screen and base and tough plastic lend it an air of quality. The slim chassis leaves no room for legacy ports, but there are two USB2.0 ports on the right and one on the rear, as well as FireWire and a card reader for SD and MMC memory cards. The notebook has a DVD writer, but unusually it is unable to write two-layer DVDs.

The keys have plenty of travel, although they are a bit snappy and lacking in feedback. The touch pad's buttons have a satisfying click, but the touch pad itself is too small to navigate the screen effectively. Unfortunately, having seen so many high-quality displays in our £750 notebook Labs test (*Shopper* September 2005), the X20's display suffers by comparison. It is very bright but has quite poor horizontal viewing angles and grainy whites.



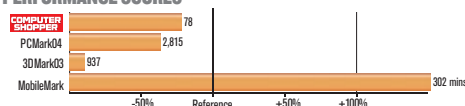
Colour distribution is also very patchy, with colours fading toward the edges of the screen.

The X20 has a 1.6GHz Intel Pentium M processor and 512MB of system memory. Its performance in the *Shopper* benchmarks and PCMark04 was good if not spectacular, but in use the notebook seems fast enough for most Windows applications. The integrated Intel graphics have some 3D performance, but not enough to run modern games at anything but the lowest settings. The notebook's light weight is complemented by its excellent five-hour battery life, so this is a great portable to take on the road with you.

Samsung's X20 seems expensive for the performance it provides, and there are notebooks with far better screens available. But it is rare to find a 15" notebook this thin and light, and its battery life is superb. The X20 has its faults, but it performs well as a portable notebook with the minimum of compromise.

Chris Finnamore

PERFORMANCE SCORES



✓ Slim, light and good-looking; excellent battery life

✗ Expensive and underpowered; poor screen

SPECIFICATIONS 1.6GHz Intel Pentium M 730, 512MB RAM, 60GB hard disk, Intel 915GM integrated graphics, DVD+/-RW +/-DL, 15" 1,024x768 LCD, weighs 2.4kg

HOTLIST NOTEBOOK PC

HP
Compaq nx6110

RATING ★★★★★

PRICE £470 inc VAT

SUPPLIER HP 08452 704222

DETAILS www.hp.co.uk

HP's Compaq nx6110 won a Best Buy award in our Labs test of budget notebooks (*Shopper* July 2005) thanks to its impressive build quality, screen and performance at the bargain price of £470.

The nx6110 has a serious matt black finish, and build quality is excellent with minimal flex in the base and screen and high-quality plastic surrounding the keyboard. The notebook's keys have excellent travel and feedback.

The nx6110's screen is bright with excellent contrast. At 2.75kg it is fairly portable. Inside are Intel's latest Sonoma chipset and an Intel



Celeron M processor, giving it plenty of performance for office tasks, but an extra 256MB of RAM would be a useful addition. Three hours of battery life is enough for computing on the move, and the notebook has wireless networking as standard. This is a high-quality notebook that is superb value at under £500.

SPECIFICATIONS 1.4GHz Celeron M 360, 256MB RAM, 40GB hard disk, Intel 915GM integrated graphics, DVD/CD-RW, 15" LCD. Part code PT601ET

BYTE
SIZE!

Our round-up of the best new gadgets and software

ARCTIC COOLING
Copper Lite (Socket A)

RATING ★★★★★

PRICE £12 inc VAT and delivery

SUPPLIER www.kotech.co.ukDETAILS www.arctic-cooling.com

The Copper Lite is a quiet heat sink for AMD Socket A processors. The manufacturer claims it reduces temperature by 10 per cent and noise by two thirds compared with AMD's reference heat sink and fan.



The Copper Lite's clip design makes installation tricky. Instead of attaching one end of the clip and forcing down the other with a screwdriver, you slowly tighten a screw that pulls the clip tight. This is fiddly as the screw end of the clip is rather wobbly. However, once installed, the heat sink kept the processor about five degrees cooler at idle than the reference heat sink and made significantly less noise. At this price it's very good value.

Chris Finnamore

PAKUMA
Akara K1

RATING ★★★★★

PRICE £65 inc VAT

SUPPLIER www.rockdirect.co.ukDETAILS www.pakuma.com

This is one of the most comfortable notebook backpacks we've used. Its chest and waist straps are well padded and can be adjusted in many ways for the perfect fit. Two thick foam pads run up the length of the back panel, helping to cushion the bag and prevent it rubbing on the spine.



This model is designed for notebooks with up to a 15" widescreen display, and it offers plenty of shock protection. While compact, it's big enough for an overnight stay or a whole weekend if you pack light. The Pakuma is very well made and it doesn't look like a notebook bag, so it's worth its premium price.

Simon Handby


REVIEW NOTEBOOK PC

MV Ixius 15

RATING ★★★★★

PRICE £1,099 inc VAT

SUPPLIER MV 08718 554668

DETAILS www.go-mv.com

The PCI Express standard for notebooks has brought notebook graphics chipsets into line with their desktop counterparts, and some notebooks have 3D performance to rival that of a PC. Most gaming notebooks are huge, heavy monsters, but MV has tried to squeeze a lot of gaming power into a smaller package.

The Ixius 15 is not the most attractive notebook we have seen. The chassis is covered in bumps but it feels solid with good-quality plastic around the keyboard and screen. The base is very thick but has plenty of ports: the Ixius has four USB2.0 sockets, FireWire and parallel, PS/2 and serial legacy connectors. A multibay on the left has separate card readers for CF, SD, SM, MS and MMC cards, but you can replace this with hot-swappable modules for an extra hard disk, battery, DVD writer or floppy drive. Bluetooth is also built in for connecting devices such as mice or mobile phones.

The notebook has a good keyboard with keys that have plenty of travel but not much feedback. The touch pad has an odd semicircular design but is comfortable to use. The 15" screen has a higher-than-average resolution of 1,400x1,050 pixels and a high level of contrast, suiting it well to the dark and moody atmosphere of games such as Doom 3. The display is less adept at displaying photos, as colours

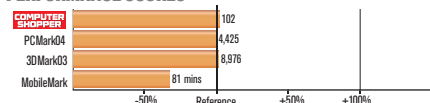


lack vibrancy. The notebook is a kilogram lighter than MV's Ixius 17, which we reviewed in *Labs, Shopper* June 2005, but 4.5kg is still too much weight to carry comfortably. Battery life is also abysmal at 81 minutes, but this is to be expected from a notebook with a desktop processor.

The Ixius 15 has a 3.0GHz Intel Pentium 4 processor rather than the 3.4GHz version in its bigger brother, the Ixius 17. However, it performed almost as well in our benchmark tests, achieving very high scores in PCMark04 and the *Shopper* benchmarks. 3D performance is also stunning. It coped admirably with 3DMark03, and managed a silky-smooth 50.7fps in Doom 3 with 4x anti-aliasing switched on.

MV's Ixius 15 may be heavy and the styling won't be to everyone's taste, but it's a very powerful notebook that is perfect for taxing 2D tasks and the latest games. It is also very good value at £1,100, making it around £300 cheaper than other notebooks with equivalent gaming power.

Chris Finnamore

PERFORMANCE SCORES


✓ Plenty of performance for the price

✗ Not pretty; screen lacks vibrancy

SPECIFICATIONS 3.0GHz Intel Pentium 4 530, 512MB RAM, 60GB hard disk, nVidia GeForce Go 6800 graphics, DVD+/- RW DL, 15" 1,400x1,050 LCD, Bluetooth, weighs 4.5kg

HOTLIST NOTEBOOK PC

ACER Aspire 5014WLMi

RATING ★★★★★

PRICE £745 inc VAT

SUPPLIER www.cclonline.com
DETAILS www.acer.co.uk

Acer's Aspire 5014WLMi won our £750 notebook Labs test (*Shopper* September 2005) with its impressive features and powerful performance for the price. It is a fairly large notebook and is not particularly portable at 3.5kg, but it has enough 2D performance to make light of most tasks and is even capable of playing the latest games at decent resolutions and frame rates.

The Aspire 5014WLMi also has an excellent screen, a DVD writer and a large 80GB hard disk. Its only real drawback is its mediocre battery life, but it is still astonishing



that you can buy a notebook with this much power for less than £750.

SPECIFICATIONS 2.2GHz AMD Athlon 64 for Notebooks 3400+, 512MB RAM, 80GB hard disk, ATI Mobility Radeon X700 graphics, DVD+/-RW DL, 15.4" widescreen LCD

BYTE SIZE!



Our round-up of the best new gadgets and software

APCOM

Pegasus Mobile NoteTaker

RATING ★★★★★

PRICE £100 inc VAT

SUPPLIER www.amazon.co.uk
DETAILS www.apcom.ltd.uk

The Pegasus Mobile NoteTaker records everything you write and uploads it to your PC. It clips to any notepad up to A4 size and records the pen strokes from its battery-powered pen.

The Pegasus includes handwriting recognition software for your PC, so you can convert your imported notes to text. How well this works depends on your penmanship. The shape recognition function can turn boxes, triangles and circles into sharp geometric shapes, but any text inside them is mangled, as the software turns this into more shapes.

These reservations aside, if you spend a lot of time in meetings taking notes, then the Pegasus Mobile NoteTaker is a godsend.

Ben Henley



JABRA BT205

RATING ★★★

PRICE £30 inc VAT

SUPPLIER www.expansys.com
DETAILS www.jabra.com

Jabra's BT205 is an entry-level Bluetooth headset. It has Jabra's distinctive curved behind-the-ear design and is reasonably comfortable to wear, although not quite as unobtrusive as an ordinary hands-free kit. Setting it up with an Orange SPV C500 was a simple matter of holding down the talk button for a few seconds before searching for the headset in the phone's Bluetooth menu and pairing the two devices.

The buttons on the rear of the headset for answering calls and adjusting volume are easy to use, but sound quality is not the best. Voices sound muffled, and the person on the other end of the line is subjected to plenty of background noise from the BT205's microphone. Overall, though, it's not bad for a cheap device.

Chris Finnamore





CHOOSING A...

NOTEBOOK
COMPUTER

Follow our simple step-by-step advice to find the perfect notebook PC for your needs and your budget

1 The minimum specification of notebook we recommend, shown below in grey, is a good starting point when working out your ideal system. This is an average notebook that should cost around £700. It is not particularly powerful or, at 3.5kg, particularly portable. Mobile processors increase battery life and are becoming more common, even at this price.

2 Most people want a better notebook than the minimum – but what is your definition of better? Do you want something more powerful, or lighter and better-looking? Desktop replacement notebooks, which approach the power of a full-size PC, are necessarily large to house the extras. These usually include a desktop processor and larger battery to keep the whole lot running for any length of time.

3 If portability is your main priority, keep the spec modest (a Pentium M 1.7GHz with a 15" screen, say) but spend more. This will buy you an executive notebook with the kind of cutting-edge design required to miniaturise without compromising usability. Clever chassis, expensive batteries and the finest materials are prerequisites for superior ultra-portable notebooks.

4 There are features you can add to a notebook without piling on weight or reducing battery life. A 60GB, 80GB or 100GB hard disk and 1GB of RAM won't hurt. Another possibility is an external drive that you can carry with you or leave at home according to the nature of your trip. Some ultra-portables can attach to an optional docking station, which incorporates drives, ports and extra power for when you need it. It's the best of both worlds, but tends to be expensive.

5 If you're not swayed by ultra-portable chic, you can get a lot more for your money. Today's desktop replacements pile on the features but still keep the price well under £1,500. Alternatively, go for a balanced package: middling power and price in a reasonably portable package. Which one you pick depends on how much power and which features you need, so consider each in turn.

6 Notebooks run the same software as desktops, so our advice on the core specification is the same (see page 16). However, hard disks go up to only 100GB and even the best notebook graphics lag behind desktops.

7 DVD rewriter drives are standard and will allow you to burn CDs and DVDs on the move. If you want to watch movies, consider buying a notebook with a widescreen display.

8 A 1,024x768 screen is the entry level these days, but its size will depend on the notebook's purpose. Ultra-portables might have screens as small as 9". Widescreen displays have resolutions of 1,200x768 upwards but make for a bulkier notebook.

9 A modem and regular 10/100 Ethernet port are standard. Centrino notebooks also have wireless 802.11b or 802.11g networking (WiFi), and it's becoming increasingly popular on all models. IEEE-1394 (FireWire) and Bluetooth can be added to the default TV-out and USB2.0 ports. Memory card readers are extremely common, so check that your camera or MP3 player's format is supported.

10 Once you're happy with your spec, start to shortlist some models you can afford. Check the weight and battery life of each of them. If these aren't acceptable, you need to reconsider how much power and which features you really need.

FILL IN YOUR SPECS HERE

(Recommended minimum in grey)

PROCESSOR: AMD Mobile Sempron 1800+
MEMORY: 512MB DDR
HARD DISK: 40GB
STORAGE: DVD rewriter
GRAPHICS: Integrated (using system memory)
SCREEN: 1,024x768 LCD
EXTRAS: Wireless networking, FireWire
CONNECTORS: Three USB2.0, network, modem
SOFTWARE: Windows XP Home Edition
WEIGHT: 3.5kg

BYTE
SIZE!

Our round-up of the best new gadgets and software

RADICA Arcade Legends Sensible Soccer Plus

RATING ★★★★★
PRICE £30 inc VAT
SUPPLIER www.firebox.com
DETAILS www.radicauk.com



This package consists of a replica Sega Megadrive, two controllers and Sensible Soccer. Just a couple of minutes of playing will remind you how good that game was. The graphics are poor and the gameplay unrealistic, but it's incredibly addictive both when playing a friend or the computer.

You can play friendlies, set up a custom league and take part in cup competitions. Your game status is saved so you can continue later. It also comes with Mega-Lo-Mania and Cannon Fodder, which aren't very good, but who cares when you have Sensible Soccer? It may seem pricey but, trust us, you won't regret buying it.

David Ludlow

EFX USB Mug Warmer

RATING ★★★
PRICE £15 inc VAT
SUPPLIER www.needapresent.com
DETAILS www.efx.co.uk



In its various incarnations the USB port has been put to good use, connecting your PC to printers, scanners and digital cameras. But is this the limit of its usefulness? EFX doesn't think so, and consequently cold coffee, the scourge of PC users, has a new foe.

Simply connect the Cup Warmer to a USB port and press the power button. In minutes you have a heated metallic plate that keeps your coffee at a drinkable temperature. Sadly, almost all the mugs in our office were too large to fit inside the 75mm-diameter plastic rim. If you like your cups narrow, the USB mug warmer is a practical and inexpensive upgrade. If you like your mugs fat, though, you're out of luck.

David McKinnon